2/19/17

DIALOG(R) File 347: JAPIO

(c) 2003 JPO & JAPIO. All rts. reserv.

06281609 **Image available**

BEARING FOR WATER PUMP AND WATER PUMP FOR WATER-COOLED ENGINE IN AUTOMOBILE

PUB. NO.: 11-223198 [JP 11223198 A] PUBLISHED: August 17, 1999 (19990817)

INVENTOR(s): MIYAKE NOBUHIKO

IWAKIRI SHIGERU

APPLICANT(s): NIPPON SEIKO KK

APPL. NO.: 10-315467 [JP 98315467] FILED: October 19, 1998 (19981019)

INTL CLASS: F04D-029/12; F16C-033/78; F16C-033/80; F16J-015/32

ABSTRACT

PROBLEM TO BE SOLVED: To provide a **bearing** for a water pump, in which penetration of cooling water or water vapor into the **bearing** inside or leakage of grease in the **bearing** is prevented, and a water pump for a water-cooled engine in an automobile.

SOLUTION: A plural lines of rolling bodies 13, which are arranged between an outer ring 101 fixed in a casing and a shaft body 12, is sealed by means of an impeller side sealing device 15. The device 15 consists of an outer ring side seal ring 151, which is provided with a reinforcing ring 1511, a first auxiliary lip 1512, a main lip 1513 and a second auxiliary lip 1514 positioned on the outside diameter side beyond the lip 1513, and a shaft side seal ring, which is provided with a first cylinder part 1523 fitted and fixed to the shaft body and turned with the shaft body. The main lip 1513, the first and second auxiliary lips 1512, 1514 are brought into contact with a first cylindrical outer circumference face 1524, an outer circumference face 122 of the shaft body, and a shaft side seal ring 152 individually, and the labyrinth is constructed between the extension part, which is extended on the outside diameter side, of the shaft side seal ring 152 and the outer ring side seal ring 151 or the outer ring 101.

COPYRIGHT: (C) 1999, JPO

C:\Program Files\Dialog\DialogLink\Graphics\15.bmp

35

